

1 Summary

STS44. STS44R provide a fully floating space DC power supply to the risk of second-line 2, 4-20 mA transmitters, in two Aerostats Loop Current reproduced signal to drive the two security load. The product meets the relevant regulations of GB3836.1-2000 "Part 1 of Explosive Gas Atmosphere Electrical Equipment: General requirement", and GB3836.4-2000 "Explosive Gas Explosion-proof Electrical Environment Equipment: Intrinsic Safety 'i'", and obtained a national explosion inspection agency issued certificate of explosion-proof products, can be applied to different intrinsic safety and explosion-proof system.

2 Technical Specifications:

Channel:	Double channels, Fully floating
Area of transmitters	Zone 0, II C, T4-6 danger zone Zone 1, Group A, Danger zone
Safety zone output	Signal range: 4~20mA Safety zone load resistance: 0~550Ω Output resistance in the loop: >1MΩ
Danger zone input	Signal range: 4~20mA Voltage Distribution: at 20mA >15.5V Conversion precision (%): 0.1。 Temperature drift: <1uA/℃。
LED display	Green: Source indication
Source	20~35Vdc。
Power consumption (20 mA signal)	at 24V, 110mA

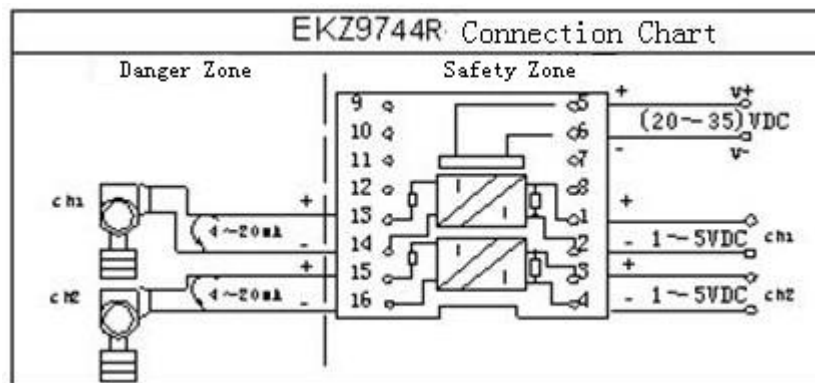
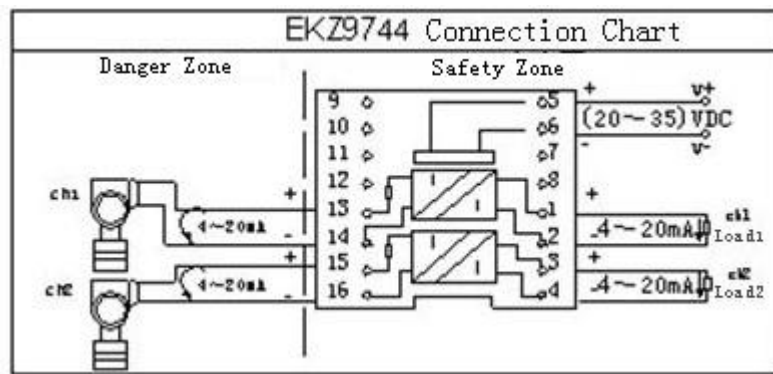
2.1 Condition of Use

- Environmental temperature: $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$
- Relative humidity: <90% (25℃)
- Atmospheric pressure: 80kPa~110kPa
- No explosive dangerous gases
- Safety Barrier should be installed in the security zone, Um-the maximum voltage of non-intrinsic side is 250V AC/DC and may not have vibration, shock, and no large current sparks and other effects of electromagnetic induction and the surrounding environment does not have a strong sense of place corrosion
- The field instruments which connect to safety barrier should have passed the identification of National Anti-explosive Testing Institute and got the anti-explosive product certification

3 Safety Specifications

$$U_0=28\text{V}, \quad I_0=93\text{ mA}, \quad P_0=660\text{mW}$$

4 Signal Connections



5 STS44 、STS44R Terminal Functions

Terminal Safety Zone	Function	Terminal Danger Zone	Function
1	Output + V (ch1)	9	Empty
2	Output - V (ch1)	10	Empty
3	Output + V (ch2)	11	Empty
4	Output - V (ch2)	12	Empty
5	Power + V	13	Input + V
6	Power - V	14	Input - V
7	Empty	15	Input + V
8	Empty	16	Input - V

6 Dimensions



7.2 Terminal lead: Rubber insulated cables, cable insulation strength should be above AC500V, traverse number of lead should not less than 30, and cross-section area greater than 0.75mm^2

- a) Isolate barrier should be put in a safe place to ensure the cleaning and no corrosive gas.
- b) The circuit wiring of intrinsic ends (blue) and non-intrinsic ends (yellow) of the isolate barrier is prohibited from wrong and confusion. The intrinsic safe leads should use the blue as the marking; intrinsic leads and non-intrinsic leads should be installed separately in the leads slot, and use different casing tubes. The intrinsic safety side of isolate barrier is not allowed to have a mixture of other power, including other power supply with intrinsic safety current.
- c) When the isolate barriers are with concentrated layout, it should make the intrinsic side adjacent with the intrinsic side and non-intrinsic side adjacent with the non-intrinsic side to avoid the confusion.
- d) On the separate power supply debugging of isolate barrier, it is important to pay attention to the model, power polarity, voltage grading and connector tab on the shell of isolate barriers.
- e) It is forbidden to test the insulation between the terminals of isolate barrier with insulation ohmmeter, to check the insulation of the system lines, it should disconnect all isolate barriers at first, otherwise it would cause the fuse of internal instant fuse.
- f) If the internal module of isolate barrier is damaged and needs replacement, it is needed to return to the factory for repairing. The repaired isolate barriers should have a comprehensive re-examination before being put into operation.
- g) The installation, use and maintenance of isolate barrier should strictly abide by the relevant contents of GB3836.15-2000 "Part 15 of Explosive Gas Electrical

Equipment: Dangerous place electrical installation (except mine)", GB50058-1992 "Electrical Equipment design code of Explosion and Fire Risk Environment" and product brochures.

7 Package and Storage

7.1 Isolate barriers should be packed with transparent plastic bags and put in the special packing boxes.

7.2 Isolate barriers should be stored in a ventilation indoor environment with ambient temperature of 5-40℃ and relative humidity less than 85%, and without corrosive gases in the air.

7.3 Attachment

A copy of product brochure

A copy of product certification

8 Warranty

The normal product warranty period is 18 months, the damage caused by improper use is not within the scope of warranty.